

# TAXONOMY OF THE GENUS *ULOMA* DEJEAN (COLEOPTERA, TENEBRIONIDAE, ULOMINI) FROM YUNNAN, CHINA

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**Abstract** The paper deals with the beetle genus *Uloma* Dejean, 1821 and reports one new species *Uloma valgipes* sp. nov. from Yunnan Province of China. The new species is allied to *U. minuta* Liu, Ren & Wang, 2007, but differs in the following characteristics: inner edge of protibia extremely curved; pronotum of male without antero-median excavation; anterior margin of pronotum emarginate without bead in middle 1/3; metatarsomere I longer than IV; aedeagus with different shape. A key to 12 species of *Uloma* Dejean known from Yunnan is provided. The type specimen is deposited in the Museum of Hebei University.

**Key words** Tenebrionidae, Ulomini, *Uloma*, new species, China.

## 1 Introduction

The genus *Uloma* was established by Dejean (1821) for *U. culinaris* (L., 1758) from German, belonging to the family Tenebrionidae. It is an important group of arboreal darkling beetles and species of the genus are mainly distributed in moist and warm areas. Until now about 200 species of the genus are valid, from which 35 species were recorded in China. These were described respectively by Wiedemann (1821), Hope (1831), Fairmaire (1882), Kolbe (1886), Gebien (1914, 1927), Kaszab (1941a, 1941b, 1954, 1980), Nakane (1968), Masumoto (1982), Masumoto and Nishiikawa (1986), Ren and Liu (2004), Liu and Ren (2007, 2008), and Liu *et al.* (2007).

During our study of the *Uloma* specimens in the Museum of Hebei University, we found a new species, *Uloma valgipes* sp. nov. from Yunnan, China. So far there are 13 species in Yunnan (including the new species described below), and about 36.1% are of Chinese species.

## 2 Material and Methods

We follow the terminology of morphological structures for the *Uloma* (Schawaller, 1996). The examined specimens are deposited in the Museum of Hebei University, Baoding (MHBU), the Institute of Zoology, Chinese Academy of Science, Beijing (IOZ) and the Institute of Entomology, SUN Yat-Sen University, Guangzhou (SYSU).

## 3 *Uloma* Dejean, 1821

*Uloma* Dejean, 1821: 67 (Type species: *Tenebrio culinaris* Linnaeus, 1758); Scidlitz, 1893: 593 – 597; Kaszab,

1982: 233 – 291; Masumoto *et al.*, 1986: 17 – 43; Schawaller, 1996: 111 – 125; Schawaller, 2000: 1 – 23. *Melasia* Perroud & Mulsant, 1856: 160 (Type species: *Melasia gagatina* Perroud & Mulsant, 1856). Synonymised by Jacquelin, 1861. *Prioscelida* White, 1846: 11 (Type species: *Prioscelida tenebrionoides* White, 1846). Synonymised by Broun, 1880.

### Key to the known species of *Uloma* Dejean from Yunnan.

The key is mostly based on males, so *U. splendida* Ren & Liu, 2004 could not be included herein.

1. Inner edge of protibia slender and extremely curved .....  
..... *U. valgipes* sp. nov.  
Inner edge of protibia straight or feebly curved ..... 2
2. Antennae with several antennomeres prominent to inner edge ..... 3  
Antennae normal, without antennomeres prominent ..... 7
3. Clypeus with two small ridges in middle ..... 4  
Clypeus flat, without ridges in middle ..... 5
4. The antennomeres V, VII and IX prominent to inner border; pronotum of female without antero-median excavation ..... *U. compressa* Liu & Ren, 2008  
The antennomeres V and VII prominent to inner border; pronotum of female with a shallow antero-median excavation ..... *U. metogana* Ren & Yin, 2004
5. Body large; mentum with margin elevated and dense short pubescence crowded ..... 6  
Body small; mentum without pubescence .....  
..... *U. minuta* Liu, Ren & Wang, 2007
6. Antennae reaching basal 1/2 of pronotum, antennomere VII sharply prominent to inner edge; poststernal process elevated one ridge at pointed apex .....  
..... *U. mulidentata* Ren & Liu, 2004  
Antennae longer, reaching basal 1/3 of pronotum, antennomere VII not prominent to inner edge; poststernal process without ridges at pointed apex .....  
..... *U. versicolor* Ren & Liu, 2004
7. Antennae with several antennomeres sublinearly truncate and

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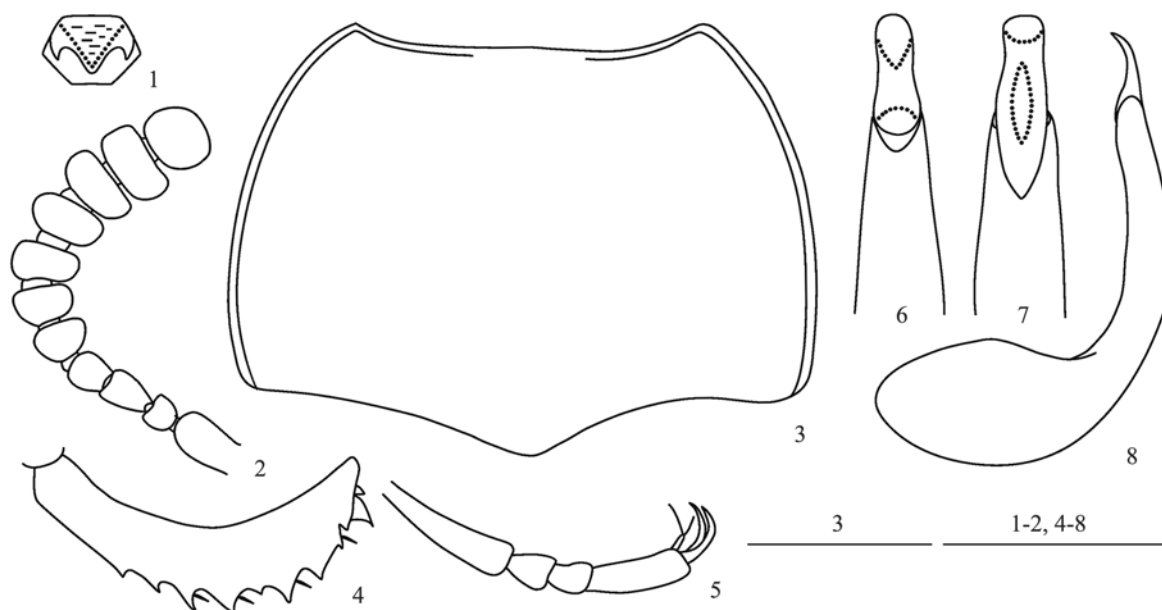
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- longitudinally grooved at inner edges .....  
 ..... *U. liangi* Ren & Liu, 2004  
 Antennae without antennomeres longitudinally grooved ..... 8  
 8. Ligula with dense and short hairs .....  
 ..... *U. castanea* Ren & Liu, 2004  
 Ligula without dense hairs ..... 9  
 9. Pronotum with antero-median excavation ..... 10  
 Pronotum without antero-median excavation ..... 11  
 10. Mentum subcordate, strongly rising as leaf-roller form at  
 both sides, and depressed in middle with dense reticulate  
 microsculptures ... *U. contortimargina* Liu & Ren, 2007  
 Mentum completely flat and broad, not rising at both sides  
 ..... *U. hirticornis* Kaszab, 1980  
 11. Maxillary palpus extremely expanded with securiform  
 terminal palpomere .....  
 ..... *U. gongshanica* Ren & Liu, 2004  
 Maxillary palpus with subknife-shaped terminal palpomere  
 ..... *U. contracta* Fairmaire, 1882

### 3.1 *Uloma valgipes* sp. nov. (Figs 1–9)

Male. Body elongate elliptical, with weak shine; dark brown, antennae, mouthparts and legs slightly paler. Head transverse; labrum transversely elliptical,

slightly produced and scattered with short hairs at front border; clypeus slightly linear at anterior border, and finely punctate; frontoclypeal suture indistinct; genae arcuately extended with small punctures, temples reduced; eyes transverse, with 2–3 facets at narrowest point in lateral view; frons slightly convex between eyes, with small punctures; mentum subhexagonal, with V-shaped convex in middle and fine transverse wrinkles, without pubescence; ligula deeply emarginate anteriorly, and depressed in middle with sparse and long hairs; maxillary palp with subknife-shaped terminal palpomere. Antennae reaching basal 1/3 of pronotum, antennomere III slender, V–X gradually widening, VII–X extremely transverse, nearly rectangular; XI nearly globose, ratio of the length (the width) of antennomeres II–XI as follows: 5.0 (5.0) : 8.0 (5.0) : 7.0 (6.0) : 7.0 (10.0) : 6.0 (11.0) : 6.0 (12.0) : 7.0 (14.0) : 6.0 (14.0) : 7.0 (14.0) : 10.0 (11.0).



Figs 1–8. *Uloma valgipes* sp. nov. 1–5. Male. 1. Mentum. 2. Antenna. 3. Pronotum. 4. Protibia. 5. Metatarsus. 6–7. Apical aedeagus. 8. Aedeagus. 1, 7. Ventral view. 2–6. Dorsal view. 8. Lateral view. Scale bars = 1 mm.

Pronotum about 1.4 times as wide as long, widest at basal 2/3, with punctures sparse in middle but becoming denser and smaller at sides; anterior margin emarginate with narrow bead only at both apices, without bead in middle 1/3; sides weakly arcuate, distinctly narrowing forward and feebly narrowing to base from widest point, with broad bead; basal margin distinctly prominent to rear in middle; anterior angles nearly rectangular, posterior angles obtuse. Scutellum triangular, with dense and small punctures. Elytra distinctly punctate-striate and with large punctures in

it, intervals flat, sparsely and finely punctate with several transverse wrinkles, lateral margins visible only at humeri in dorsal view. Propleuron with long wrinkles and large punctures. Posternum coarse, with dense punctures at sides but becoming sparser and smaller in middle, posternal process smoothly descending at pointed apex.

Protibia narrow at base, gradually widening to apex, and distinctly produced to inner apex; inner edge extremely curved; outer edge bearing eight small sharp teeth scattered with short hairs; dorsal surface

with coarse and irregular punctures; ventral surface coarse with a row of five small teeth. Mesotibia coarse, finely dentate at outer edge. Metatibia smooth with few dentations at outer edge. Length ratio of metatarsomeres I – IV as follows: 26.0 : 8.0 : 8.0 : 18.0.

Aedeagus roundly arcuate at apex in dorsal view, with a longitudinal depression which wide in middle and narrow at apices in ventral view, and extremely curved in lateral view; parameres depressed at apex, broad at base, gradually converging to apex and parallel near apex.

Female. Unknown.

Measurements. Body length 7.0 mm; width 3.0 mm.

Material examined. Holotype ♂, Mt. Longxinhei (alt. 2 300 m), Longling (24.58° N, 98.7° E), Yunnan, 23 July 2008, collected by XU Ji-Shan (MHUB).

Distribution. China (Yunnan).



Fig. 9. *Uloa valgipes* sp. nov. 9. Habitus, male, dorsal view. Scale bar = 1 mm.

Diagnosis. The new species is similar to *U. minuta* Liu, Ren & Wang, 2007, but can be distinguished from the latter by the following characteristics: 1) inner edge of protibia extremely curved; 2) pronotum of male without antero-median excavation; 3) anterior margin of pronotum emarginate with narrow bead only at both apices, without bead in middle 1/3; 4) metatarsomere I longer than IV; 5) aedeagus with different shape.

Etymology. The specific name is derived from the Latin word “*valgus*” (not straight) and “*pes*” (foot), which refers to protibia extremely curved to inner

border.

### 3.2 *Uloa compressa* Liu & Ren, 2008

*Uloa compressa* Liu & Ren, 2008: 498–501.

Material examined. Holotype ♂, Jingpingliyue (alt. 1 630 m), Jingdong, Yunnan, 16 Nov. 2001, collected by TONG Zheng-Qiang (MHUB); 2 ♂♂, 1 ♀, Manzhuang, Mengla, Yunnan, 2 Aug. 2004, collected by YUAN Cai-Xia and LI Jing (MHUB); 1 ♂, Banhong Town (alt. 1 130 m), Cangyuan, Yunnan, 16 July 2008, collected by XU Ji-Shan (MHUB); 1 ♂, Dabaitang, Xishui, Guizhou, 25 Sep. 2000, collected by REN Guo-Dong (MHUB); 2 ♂♂, Mujiao, Tongdao, Hunan, 26 July 2004, collected by WANG Ji-Liang (MHUB); 1 ♂, Mt. Daming, Guangxi, 21 May 2001, collected by ZHANG Qing (MHUB); 1 ♂, Neiwen, Pingdong, Taiwan, 27 May 2008, collected by CHEN Chang-Qing (MHUB); 2 ♂♂, 3 ♀♀, Mt. Dinghu, Zhaoqing, Guangdong, 3–5 Aug. 2010, collected by LIU Hao-Yu and ZHAO Xiao-Lin (MHUB); 2 ♂♂, Mt. Nankun, Huizhou, Guangdong, 27 Aug. 2010, collected by LIU Hao-Yu (MHUB); 20 ♂♂, 16 ♀♀, Changning (alt. 310 m), Sichuan, 9 July 2008, collected by SHI Ai-Min and LAI Guang (MHUB).

Distribution. China (Yunnan, Guizhou, Hunan, Guangxi, Taiwan, Guangdong, Sichuan).

Diagnosis and description. See Liu and Ren (2008).

### 3.3 *Uloa metogana* Ren & Yin, 2004

*Uloa metogana* Ren & Yin, 2004: 69.

Material examined. Holotype ♂, Damu, Modog, Xizang, 17 Nov. 1998, collected by YAO Jian (MHUB); 7 ♂♂, 3 ♀♀, Wanglaoshan Forest Station, Lincang, Yunnan, 8–10 July 2009, collected by XU Ji-Shan and ZHANG Li-Xiang (MHUB); 6 ♂♂, 12 ♀♀, Mengma, Menglian, Yunnan, 14–16 July 2009, collected by XU Ji-Shan and ZHANG Jian-Xiong (MHUB); 2 ♂♂, Xima (alt. 1 500 m), Yingjiang, Yunnan, 2–3 Aug. 2009, collected by MAO Ben-Yong (MHUB); 2 ♂♂, 7 ♀♀, Pianma, Lushui, Yunnan, 9 May 2004, collected by YANG Xiu-Juan and LIU Yu-Shuang (MHUB); 1 ♂, Qiaohou, Eryuan, Yunnan, 17 Aug. 2008, collected by XU Ji-Shan (MHUB); 1 ♂, Mt. Laifeng, Tengchong, Yunnan, 15 May 2004, collected by YANG Zi-Zhong (MHUB); 1 ♂, 2 ♀♀, Jiangjundong (alt. 2 200 m), Cangshan, Yunnan, 17 June 2008, collected by XU Ji-Shan (MHUB); 8 ♂♂, 2 ♀♀, Longxin Heishan (alt. 2 300 m), Longling, Yunnan, 23–25 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♀, Jiangcheng, Yunnan, 30 Aug. 2008, collected by CHEN Chang-Qing (MHUB); 2 ♀♀, Banhong



(alt. 1 130 m), Cangyuan, Yunnan, 16 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♀, Nanjian, Yunnan, 16 Aug. 2005, collected by LIU Hao-Yu (MHUB); 1 ♂, Modog (alt. 1 100 m), Xizang, 14 Aug. 2003, collected by REN Guo-Dong (MHUB); 3 ♀ ♀, Modog (alt. 1 300 m), Xizang, 14 Aug. 2003, collected by REN Guo-Dong (MHUB); 1 ♂, 1 ♀, Ani-Beibeng (alt. 1 250 – 1 900 m), Modog, Xizang, 11 Aug. 2003, collected by REN Guo-Dong (MHUB); 2 ♂ ♂, 1 ♀, Shayao, Chayu, Xizang, 24 – 26 June 1978, collected by LI Fa-Sheng (MHUB); 2 ♂ ♂, 2 ♀ ♀, Hongwei, Chayu, Xizang, 28 June 1978, collected by LI Fa-Sheng (MHUB); 1 ♂, 1 ♀, Xiachayu, Chayu, Xizang, 12 July 2005, collected by SHI Ai-Min (MHUB); 4 ♂ ♂, 3 ♀ ♀, Shangchayu, Chayu, Xizang, 14 July 2005, collected by SHI Ai-Min (MHUB); 1 ♂, Defu (alt. 1 440 m), Napo, Guangxi, 6 Apr. 1998, collected by LI Tian-Shan (MHUB); 1 ♀, Huaping, Longsheng, Guangxi, 14 Oct. 2005, collected by WANG Ji-Liang (MHUB).

Distribution. China (Yunnan, Xizang, Guangxi).

Diagnosis and discription. See Ren and Yin (2004).

### 3.4 *Uloma minuta* Liu, Ren & Wang, 2007

*Uloma minuta* Liu, Ren & Wang, 2007: 70 – 75.

Material examined. Holotype ♂, Mt. Wuyi, Guadun, Fujian, 23 May 2004, collected by YUAN Cai-Xia and LI Jing (MHUB); 6 ♂ ♂, 13 ♀ ♀, Pianma, Lushui, Yunnan, 9 May 2004, collected by YANG Xiu-Juan and LIU Yu-Shuang (MHUB); 1 ♂, Mengma, Menglian, Yunnan, 14 July 2009, collected by XU Ji-Shan (MHUB); 1 ♂, 2 ♀ ♀, Banhong (alt. 1 130 m), Cangyuan, Yunnan, 16 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♀, Mt. Wuyi, Fujian, 5 July 2003, collected by BAI Ming (MHUB); 1 ♂, Beidou (alt. 550 m), Napo, Guangxi, 11 Apr. 1998, collected by WU Min (MHUB); 1 ♂, Ranjiang (alt. 882 m), Leye, Guangxi, 25 July 2004, collected by YU Yang (MHUB); 1 ♀, Yongshun, Hunan, 7 Aug. 2004, collected by WANG Jian-Feng (MHUB); 1 ♀, Dongzhai, Henan, 15 July 2005, collected by WANG Ji-Liang (MHUB); 2 ♂ ♂, Jingangling, Yaoluoping, Yuexi, Anhui, 27 – 29 July 2007, collected by BA Yi-Bin (MHUB); 2 ♂ ♂, South China Agricultural University, Guangzhou, Guangdong, 1 Aug. 2010, collected by LIU Hao-Yu (MHUB); 7 ♂ ♂, 9 ♀ ♀, Changning (alt. 310 m), Sichuan, 9 July 2008, collected by SHI Ai-Min (MHUB).

Distribution. China (Yunnan, Fujian, Guangxi, Hunan, Henan, Anhui, Guangdong, Sichuan).

Diagnosis and discription. See Liu *et al.* (2007).

### 3.5 *Uloma mulidentata* Ren & Liu, 2004

*Uloma mulidentata* Ren & Liu, 2004: 296 – 297.

Material examined. Holotype ♂, Mt. Gaoligong (alt. 2 540 m), Yunnan, 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 2 ♂ ♂, Cikai town Pulahe, Gongshan (alt. 1 510 m), Yunnan, 25 July 2002, collected by LIANG Hong-Bin (MHUB); 1 ♀, Shilicum T. Shaoka grassland, Jinping (alt. 1 960 m), Yunnan, 16 Dec. 2003, collected by LIANG Hong-Bin (MHUB); 1 ♂, Dahaoping (alt. 2 000 m), Tengchong, Yunnan, 3 May 2002, collected by SONG Jin-Xin (MHUB); 1 ♀, Heiwan, Jiangkou, Guizhou, 3 Aug. 2001, collected by REN Guo-Dong (MHUB); 2 ♂ ♂, 1 ♀, Chaoyuanguan, Mt. Simian, Chongqing, 30 July 2003, collected by LIU Yu-Shuang and YUAN Cai-Xia (MHUB); 3 ♂ ♂, 2 ♀ ♀, Dawopu, Mt. Simian, Chongqing, 2 Aug. 2003, collected by LIU Yu-Shuang and YUAN Cai-Xia (MHUB).

Distribution. China (Yunnan, Guizhou, Chongqing).

Diagnosis and discription. See Ren and Liu (2004).

### 3.6 *Uloma versicolor* Ren & Liu, 2004

*Uloma versicolor* Ren & Liu, 2004: 297 – 298.

Material examined. Holotype ♂, Mt. Gaoligong, Yunnan (alt. 2 540 m), 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 8 ♂ ♂, 7 ♀ ♀, Tacheng (alt. 2 012 m), Weixi, Yunnan, 7 Aug. 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♂, Qiaohou, Eryuan, Yunnan, 17 Aug. 2008, collected by XU Ji-Shan (MHUB); 1 ♂, Mt. Maer, Heqing, Yunnan, 22 June 2008, collected by XU Ji-Shan (MHUB); 1 ♀, Heiwan, Jiangkou, Guizhou, 3 Aug. 2001, collected by REN Guo-Dong (MHUB).

Distribution. China (Yunnan, Guizhou).

Diagnosis and discription. See Ren and Liu (2004).

### 3.7 *Uloma liangi* Ren & Liu, 2004

*Uloma liangi* Ren & Liu, 2004: 298 – 299.

Material examined. Holotype ♂, Mt. Gaoligong, Yunnan (alt. 2 540 m), 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 2 ♂ ♂, 2 ♀ ♀, GongdangshenShan, Bingzhongluo, Gongshan (alt. 2 540 m), Yunnan, 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 1 ♂, 1 ♀, Danlonghe (alt. 2 250 m), Datang, Tengchong, Yunnan, 26 Apr. 2002, collected by OU Xiao-Hong (MHUB); 12 ♂ ♂, 31 ♀ ♀, Laowo (alt. 1 500 m), Lushui, Yunnan, 26 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 4 ♀ ♀, Dasheyao forest station roadside, Bawan (alt. 2 320 m), BaoShan,

Yunnan, 16 Oct. 2003, collected by LIANG Hong-Bin (MHUB); 4 ♀♀, LongxinHeishan (alt. 2 300 m), Longling, Yunnan, 23 – 25 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 4 ♂♂, 4 ♀♀, Mt. Ailao, Jingdong, Yunnan, 7 Aug. 2009, collected by XU Ji-Shan and ZHANG Li-Xiang (MHUB); 1 ♀, Wanglaoshan Forest Station, Lincang, Yunnan, 8 July 2009, collected by XU Ji-Shan (MHUB); 1 ♀, Xinhua, Xiping, Yunnan, 29 July 2009, collected by XU Ji-Shan (MHUB); 28 ♂♂, 62 ♀♀, Junzishan, Shizong, Yunnan, 14 July 2006, collected by MAO Ben-Yong (MHUB); 3 ♂♂, 6 ♀♀, Qiaohou, Eryuan, Yunnan, 17 Aug. 2008, collected by XU Ji-Shan (MHUB); 1 ♀, Mt. Leigong forest station, Guizhou, 14 Sep. 2005, collected by WANG Ji-Liang (MHUB); 3 ♂♂, 2 ♀♀, Dashahe, Daozhen, Guizhou, 19 Aug. 2004, collected by YANG Xiu-Juan and HUA Hui-Ran (MHUB); 1 ♂, Mt. Fanjing, Jiangkou, Guizhou, 29 July 2001, collected by REN Guo-Dong (MHUB); 3 ♂♂, 2 ♀♀, Kuankuoshui, Suiyang, Guizhou, 17 Aug. 2010, collected by NIU Yi-Ping and ZHOU Yong (MHUB); 3 ♀♀, Mt. Wuyi, Fujian, 21 May 2004, collected by YUAN Cai-Xia and LI Jing (MHUB); 2 ♂♂, Dawopu, Jiangjin, Chongqing, 3 Aug. 2003, collected by YUAN Cai-Xia and LIU Yu-Shuang (MHUB); 3 ♂♂, 2 ♀♀, Mt. Maan, Ganluo (alt. 2 300 – 2 320 m), Sichuan, 23 – 24 July 2008, collected by SHI Ai-Min (MHUB); 1 ♂, 1 ♀, Xiaoqiling, Yaoluoping, Yuexi, Anhui, 18 – 19 July 2007, collected by BA Yi-Bin (MHUB).

Distribution. China (Yunnan, Guizhou, Fujian, Chongqing, Anhui, Sichuan).

Diagnosis and discription. See Ren and Liu (2004).

### 3.8 *Uloma castanea* Ren & Liu, 2004

*Uloma castanea* Ren & Liu, 2004: 299 – 301.

Material examined. Holotype ♂, Mt. Gaoligong, Yunnan (alt. 2 540 m), 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 1 ♂, 1 ♀, Bingzhongluo, Gongshan (alt. 1 700 m), Yunnan, 26 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 1 ♂, Cangshan (alt. 1 400 – 3 000 m), Dali, Yunnan, 10 June 1998, collected by MAO Ben-Yong (MHUB); 19 ♂♂, 10 ♀♀, Pianma, Lushui, Yunnan, 9 May 2004, collected by YANG Xiu-Juan and LIU Yu-Shuang (MHUB); 8 ♂♂, 8 ♀♀, Laowo (alt. 1 500 m), Lushui, Yunnan, 26 July 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♂, Shangchanghe, Wuliangshan Natural Reserve, Jingdong (alt. 2 200 m), Yunnan, 24 May 2001, collected by BU Wen-Jun (MHUB); 1 ♀, Danlonghe (alt. 2 250 m), Datang,

Tengchong, Yunnan, 26 Apr. 2002, collected by OU Xiao-Hong (MHUB); 13 ♂♂, 12 ♀♀, Weixi (alt. 2 175 m), Yunnan, 4 Aug. 2008, collected by XU Ji-Shan and GAO Zhen-Hua (MHUB); 1 ♀, Lajing (alt. 2 270 m), Lanping, Yunnan, 1 Aug. 2008, collected by XU Ji-Shan and ZHOU Yong (MHUB); 6 ♂♂, 12 ♀♀, Cangshanxi, Yangbi, Yunnan, 13 Oct. 2007, collected by XU Ji-Shan (MHUB); 9 ♂♂, 11 ♀♀, Qiaohou, Eryuan, Yunnan, 17 Aug. 2008, collected by XU Ji-Shan (MHUB); 1 ♂, 2 ♀♀, Mt. Wuyi, Taoyuanyu, Guadun, Fujian, 25 May 2004, collected by YUAN Cai-Xia and LI Jing (MHUB); 1 ♀, Longcaoping, Guangxi, 27 Aug. 1986, collected by WANG Zheng-You (MHUB); 2 ♀♀, Mt. Fanjing, Jiangkou, Guizhou, 29 July 2001, collected by REN Guo-Dong (MHUB); 1 ♂, Heiwan, Jiangkou, Guizhou, 3 Aug. 2001, collected by REN Guo-Dong (MHUB); 1 ♀, Mt. Xitianmu (alt. 500 m), Zhejiang, 25 July 1998, collected by WU Hong (MHUB); 1 ♀, Yimen (alt. 2 000 – 2 200 m), Huili, Sichuan, 30 July 1974, collected by HAN Yan-Heng (MHUB); 3 ♂♂, Muli (alt. 2 200 – 2 400 m), Sichuan, 29 July 2008, collected by XU Yong (MHUB); 1 ♀, Mt. Simian, Chaoyuanguan, Chongqing, 30 July 2003, collected by LIU Yu-Shuang (MHUB); 4 ♂♂, 4 ♀♀, Yaoluoping Management, Yuexi, Anhui, 17 July 2007, collected by BA Yi-Bin (MHUB); 5 ♂♂, 5 ♀♀, Baotianman, Neixiang, Henan, 20 Aug. 2008, collected by REN Guo-Dong and WU Qi-Qi (MHUB); 1 ♂, 5 ♀♀, Huangshian, Xixia, Henan, 18 Aug. 2008, collected by REN Guo-Dong and WU Qi-Qi (MHUB).

Distribution. China (Yunnan, Fujian, Guangxi, Guizhou, Zhejiang, Sichuan, Chongqing, Anhui, Henan).

Diagnosis and discription. See Ren and Liu (2004).

### 3.9 *Uloma contortimargina* Liu & Ren, 2007

*Uloma contortimargina* Liu & Ren, 2007: 530 – 538.

Material examined. Holotype ♂, Mt. Pinglong (alt. 350 – 500 m), Shangsi, Guangxi, 6 Apr. 2002, collected by SHI Ai-Min (MHUB); 1 ♂, 1 ♀, Banpo, Luchun, Yunnan, 24 July 2009, collected by XU Ji-Shan and ZHANG Li-Xiang (MHUB); 2 ♂♂, 4 ♀♀, Mt. Pinglong (alt. 350 – 500 m), Shangsi, Guangxi, 6 Apr. 2002, collected by SHI Ai-Min (MHUB); 1 ♀, Fulong (alt. 200 m), Fangcheng, Guangxi, 23 May 1999, collected by LI Wen-Zhu (IOZ); 1 ♂, Maolan, Libo, Guizhou, 17 Aug. 2010, collected by NIU Yi-Ping (MHUB); 1 ♂, Yuanerping, Yuanling, Hunan, 3 Aug. 2004, collected by WANG Ji-Liang (MHUB).

Distribution. China (Yunnan, Guangxi,

Guizhou, Hunan).

Diagnosis and description. See Liu and Ren (2007).

### 3.10 *Uloma hirticornis* Kaszab, 1980

*Uloma hirticornis* Kaszab, 1980: 169–221.

Material examined. 1 ♂, 1 ♀, Wangtianshu, Mengla, Yunnan, 6 Aug. 2007, collected by REN Guo-Dong and HOU Wen-Jun (MHUB).

Distribution. China (Yunnan); Vietnam.

Diagnosis and description. See Kaszab (1980).

### 3.11 *Uloma gongshanica* Ren & Liu, 2004

*Uloma gongshanica* Ren & Liu, 2004: 300–301.

Material examined. Holotype ♀, Mt. Gaoligong, Yunnan (alt. 2 540 m), 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 2 ♂♂, Pianma, Lushui, Yunnan, 9 May 2004, collected by YANG Xiu-Juan and LIU Yu-Shuang (MHUB); 1 ♂, Ruili, Yunnan, 17 May 2004, collected by YANG Xiu-Juan (MHUB); 2 ♂♂, 4 ♀♀, Yingjiang (alt. 1 790–2 350 m), Yunnan, 20 June 1995, collected by XU Zheng-Hui (MHUB); 1 ♀, Banglazhang (alt. 1 280 m), Longling, Yunnan, 17 Apr. 2002, collected by YI Chuan-Hui (MHUB); 1 ♀, Xingshan, Hubei, 7 Aug. 1982, collected by MAO Xiao-Yuan (MHUB); 2 ♀♀, Mt. Mogan, Zhejiang, 17 June 2004, collected by LIANG Hong-Bin (MHUB); 1 ♀, Kuankuoshui, Suiyang, Guizhou, 17 Aug. 2010, collected by NIU Yi-Ping (MHUB); 1 ♂, Kending Park, Taiwan, 7 Oct. 2008, collected by CHEN Chang-Qing (MHUB).

Distribution. China (Yunnan, Hubei, Zhejiang, Guizhou, Fujian, Taiwan).

Diagnosis and description. See Ren and Liu (2004).

### 3.12 *Uloma contracta* Fairmaire, 1882

*Uloma contracta* Fairmaire, 1882: 226–227.

Material examined. 1 ♀, Hehua, Tengchong, Yunnan, 13 May 2004, collected by YANG Xiu-Juan (MHUB); 1 ♂, Tianchi, Jianfengling, Hainan, 1 July 1981, collected by OU Yang (SYSU); 1 ♀, Jianfengling, Hainan, 22 Oct. 1983, collected by WU Shao-Hua (SYSU); 1 ♂, Defu (alt. 1 350 m), Napo, Guangxi, 18 June 2000, collected by ZHU Chao-Dong (MHUB); 1 ♀, Defu (alt. 1 350 m), Napo, Guangxi, 19 June 2000, collected by CHEN Jun (IOZ); 1 ♂, Beidou (alt. 550 m), Napo, Guangxi, 10 Apr. 1998, collected by LI Wen-Zhu (IOZ); 1 ♂, Fulong (alt. 200 m), Fangcheng, Guangxi, 23 May 1999, collected by ZHANG Yan-Zhou (IOZ).

Distribution. China (Yunnan, Hainan, Guangxi); Indonesia.

Diagnosis and description. See Fairmaire (1882).

### 3.13 *Uloma splendida* Ren & Liu, 2004

*Uloma splendida* Ren & Liu, 2004: 301–302.

Material examined. Holotype ♀, Mt. Gaoligong, Yunnan (alt. 2 540 m), 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 2 ♀♀, Mt. Gongdangshen (alt. 2 540 m), Bingzhongluo, Gongshan, Yunnan, 17 Apr. 2002, collected by LIANG Hong-Bin (MHUB); 1 ♀, Heiwan, Jiangkou, Guizhou, 3 Aug. 2001, collected by REN Guo-Dong (MHUB); 1 ♀, Mt. Fanjing, Jiangkou, Guizhou, 29 July 2001, collected by REN Guo-Dong (MHUB).

Distribution. China (Yunnan, Guizhou).

Diagnosis and description. See Ren and Liu (2004).

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### REFERENCES

- Broun, T. 1880. *In*: Manual of the New Zealand Coleoptera. Vol. 1. The Office of James Hughes, Wellington. pp. 365–366.
- Dejean, P. F. M. A. 1821. *In*: Catalogue de la Collection de Coléoptères de M. le Baron Dejean. Crevot, Paris. pp. 67.
- Fairmaire, L. 1882. Coléoptères Hétéromères de Sumatra. *Notes from the Leyden Museum*, 4: 219–265.
- Gebien, H. 1914. H. Sauter's Formosa-Ausbeute. Tenebrionidae (Coleopt.). *Archiv für Naturgeschichte A*, 79 (9): 1–60.
- Gebien, H. 1927. Fauna Sumatrensis (Beitrag Nr. 31) Tenebrionidae (Col.). *Supplementa Entomologica*, 15: 22–58.
- Hope, F. W. 1831. Synopsis of the New Species of Nepal Insects in the Collection of Major General Hardwicke. *In*: Gray, J. E. (eds.), The Zoological Miscellany. Vol. 1. Treuttel, Wurtz and Co., London. pp. 21–31.
- Jacquelin, du Val C. 1861. *In*: Manuel Entomologique. Genera des Coleopteres d'Europe Comprenant leur Classification en Families Naturelles, la Description de tous les Genres, des Tableaux Synoptiques Destinés à Faciliter l'étude, le Catalogue de Toutes les Espèces de Nombreux Dessins au Trait de Caractères et Plus de Treize Cents Types Représentant un ou Plusieurs Insectes de Chaque Genre Dessinés et Peints d'après Nature avec le plus Grand Soin par M. Jules Migneaux. Tome Troisième. A. Deyrolle Deyrolle, Paris. pp. 301–302.
- Kaszab, Z. 1941a. Tenebrioniden aus Formosa (Col.). *Stettiner Entomologische Zeitung*, 102: 51–72.
- Kaszab, Z. 1941b. Neue Orientalische Tenebrioniden (Coleoptera). *Arbeiten über Morphologische und Taxonomische Entomologie aus Berlin Dahlem*, 8: 118–127.
- Kaszab, Z. 1954. Tenebrioniden Collected by J. Klapperich in

- Fukien. *Annales Historico-Naturales Musei Nationalis Hungarici Pars Zoologica*, 5: 254.
- Kaszab, Z. 1980. Angaben zur Kenntnis der Tenebrioniden Nordvietnams (Coleoptera). *Annales Historico Naturales Musei Nationalis Hungarici*, 72: 169–221.
- Kaszab, Z. 1982. Revision Der Australischen *Uloma*-Arten (Coleoptera: Tenebrionidae). *Acta Zoologica Academiae Scientiarum Hungaricae*, 28 (3–4): 233–291.
- Kolbe, H. J. 1886. Beiträge zur Kenntnis der Coleopteren-Fauna Koreas, bearbeitet auf Grund der von Herm C. Gottsche veranstalteten Sammlung; nebst Bemerkungen über die zoogeographische Verhältnisse dieses Faunengebietes und Untersuchungen über einen Sinnensapparat im Gaumen von *Microlampidius morio*. *Archiv für Naturgeschichte*, 52 (1): 139–240.
- Linnaeus, C. 1758. *Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis*. Tomus 1 (ed.), Decima, Reformata. Laurentii Salvii, Holmiae. [5] + 6-823 + [1] pp.
- Liu, S-S and Ren, G-D 2007. Taxonomic study of the genus *Uloma* Dejean from Guangxi in China (Coleoptera, Tenebrionidae, Ulomini). *Acta Zootaxonomica Sinica*, 32 (3): 530–538. [动物分类学报]
- Liu, S-S and Ren, G-D 2008. Two new species of the genus *Uloma* Dejean, 1821 from China (Coleoptera, Tenebrionidae, Ulomini). *Acta Zootaxonomica Sinica*, 33 (3): 498–501. [动物分类学报]
- Liu, S-S, Ren, G-D and Wang, J-S 2007. Three new species of the genus *Uloma* Dejean, 1821 from Wuyi Mountain in China, with a new record (Coleoptera, Tenebrionidae, Ulomini). *Acta Zootaxonomica Sinica*, 32 (1): 70–75. [动物分类学报]
- Masumoto, K. and Nishiikawa, N. 1986. A revisional study of the species of the genus *Uloma* from Japan, Korea and Taiwan (Tenebrionidae, Coleoptera). *Insecta Matsumuran*, 35: 17–43.
- Masumoto, K. 1982. Tenebrionidae of Formosa (4). *Elytra*, 10: 17–32.
- Nakane, T. 1968. New or little known Coleoptera from Japan and its adjacent regions, X X VII. *Fragmenta Coleopterologica*, 19–21: 76–85.
- Perroud, B. P. and Mulsant, E. 1856. Description de deux nouvelles espèces de coléoptères constituant un genre nouveau dans la famille des ulomiens. *Opuscules Entomologiques*, 7: 160–165.
- Ren, G-D and Liu, S-S 2004. Six new species of the genus *Uloma* from Gaoligong Mountain in China (Coleoptera, Tenebrionidae). *Acta Zootaxonomica Sinica*, 29 (2): 296–304. [动物分类学报]
- Ren, G-D and Yin, H 2004. Tenebrionidae. In: Yang, X-K (eds.), *Insects of the Great Yarlung Zangbo Canyon of Xizang*. China Science and Technology Press, Beijing. pp. 69.
- Schawaller, W. 1996. The genus *Uloma* Dejean (Coleoptera: Tenebrionidae) in the Himalayas. *Acta Zoologica Academiae Scientiarum Hungaricae*, 42 (2): 111–125.
- Schawaller, W. 2000. The genus *Uloma* Dejean (Coleoptera: Tenebrionidae) in Borneo and Sumatra. *Acta Zoologica Academiae Scientiarum Hungaricae*, 605: 1–23.
- Seidlitz, G. C. M. von. 1893. Tenebrionidae. In: Kiesenwetter, H. von. and Seidlitz, G. C. M. (eds.), *Naturgeschichte der Insecten Deutschlands*. Begonnen von Dr. W. F. Erichson, Fortgesetzt von Prof Dr. H. Schaum, Dr. G. Kraatz, H. v. Kiesenwetter, Julius Weise, Edm. Reitter und Dr. G. Seidlitz. Erste Abteilung Coleoptera. Fünfter Band. Erste Hälfte. Nicolaische Verlags-Buchhandlung, Berlin. pp. 201–400.
- White, A. 1846. Insects. In: Richardson, J. and Gray, E. (eds.), *Zoology of the Voyage of H. M. S. Erebus & Terror, Under the Command of Captain Sir James Clark Ross, R. N., F. R. S, During the Years 1839 to 1843*. Part XI. – Apr. Insects of New Zealand. London. pp. 1–24.
- Wiedemann, C. R. W. 1821. In: Wiedemann, C. R. W. and Germar, E. F. (eds.), *Neue Exotische Käfer*. Magazin der Entomologie. 4: 107–183.

## 中国云南齿甲属分类研究 (鞘翅目, 拟步甲科, 齿甲族)

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**摘要** 对中国云南省的齿甲属 *Uloma* Dejean 进行了分类整理, 描述 1 新种 *Uloma valgipes* sp. nov. 并绘图, 新种与小齿甲 *U. minuta* Liu, Ren & Wang, 2007 相似, 但可以通过以下特征区别于后者: 前足胫节向内侧极弯; 雄性前胸背板无凹; 前胸背板前缘近两侧具细饰边, 中部 1/3 范围内无饰边; 后足第 1 跗节长于第 4 节; 雄性外生殖器形状不同。并给出了云南省已知种类检索表。模式标本保存于河北大学博物馆。

**关键词** 鞘翅目, 拟步甲科, 齿甲属, 新种, 中国, 云南。

**中图分类号** Q969.498.2

**弯胫齿甲, 新种 *Uloma valgipes* sp. nov.** (图 1~9)

正模 ♂, 云南龙陵龙新黑山 (海拔 2 300 m), 2008-07-23, 徐吉山采。

词源: 新种种名源自拉丁词 *valgus* (弯的) + 拉丁词 *pes* (足) 变化词尾组合而成, 意指该虫的雄性前足胫节向内侧极弯曲。

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